Byford. (H. T.)

A STUDY

OF THE

CAUSATION AND TREATMENT OF PELVIC HEMATOCELE.

Read before the Chicago Gynecological Society, June 18th, 1886.

BY

HENRY T. BYFORD, M.D.,

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PELVIC HEMATOCELE.

The still existing difference of opinion as to the origin, and especially as to the advisability of surgical interference in pelvic hematocele, induces me to report the following cases:

Mrs. Mary S———, a well-formed, medium-sized negress, 30 years of age, applied at the Woman's Hospital, March 14th, 1886, suffering with a retro-uterine hematocele. She had been married twice; the first time six years ago, the last time about a year ago. No children. Had one miscarriage September 10th, 1885, at six weeks, brought on by heavy lifting. Passed several clots with what the attending physicians recognized as the ovum. Was in bed three weeks. She then got up, but was taken two days later with pains and hemorrhage, and went to bed for another four weeks. Flowed continuously, sometimes more, sometimes less, for three months, and afterwards intermittently up to the time of admission to the hospital. Had been subject to pain in back and both iliac regions, principally the right. Bowels obstinately constipated from the first. Defecation painful. Sensation of pressure or straining in the rectum, as from hemorrhoids. A book canvasser, she has been unable to attend to her business until the last three weeks, and since then so unsatisfactorily, and with such discomfort, that she was ready to undergo any operation that would afford relief. She had been treated by a number of physicians, each for a different disease, and wanted no more temporiz-

ing. Her husband was clamoring for offspring, and wanted the tumor removed.

The general condition of the patient was quite good, and if she could have been kept idle and off of her feet for a year or two, she would probably have outlived the tumor, without an operation.

Upon examination but little tenderness was found, except in the left iliac region, where a few lumps the size of a walnut could be felt. A large, highly elastic body was felt per vaginam, reaching down nearly to the pelvic floor, and forwards so as to push the cervix up behind the symphysis. Uterus three and one-fourth inches. Per rectum the utero-sacral ligaments were felt to be separated, so that one reached straight, and the other diagonally across the pelvis. The mass could be pushed up until they were put upon the stretch, without causing much complaint to be made. Uterus and tumor were felt above the symphysis. The lumps in the left iliac region seemed continuous with the tumor.

On the 18th of March, assisted by Dr. Frances Carothers, I attacked the cavity of the hematocele at what seemed its softest spot behind the cervix uteri. Getting no fluid with a hypodermic needle, I introduced a fine curved bistoury. Still getting nothing, I introduced a pair of dressing forceps into the minute opening, and tore the vaginal wall by expanding the blades, until I could introduce two fingers. But little hemorrhage resulted. Introducing the forceps into the puncture made in the cyst wall, I likewise tore it open until the middle finger easily passed through it. Still no fluid escaped. I introduced the finger, encountered an organized blood clot, broke it up all around the opening, and for a couple of inches above it, and brought out half a cupful of small black pieces. A copious injection of hot water brought away quite a quantity of the same débris, but nothing else. The resulting cavity was then washed out with a two-per-cent carbolic acid solution and a carbolated vaginal tampon introduced. At 5:30 P.M. the pulse was 72, and temperature 99° F.

March 19th, 9 A.M., pulse 72, temp. 99° F. Removed the plugging from vagina; 2 P.M., pulse 66, temp. 99⅘° F. Irrigations of cavity with carbolic acid, two per cent, ordered to be used twice a day; 8 P.M., pulse 87, temp. 101⅘° F. 20th, 9 A.M., pulse 78, temp. 98° F. Ate oatmeal, milk, jelly and cracker; 1:30 P.M., pulse 84, temp. 99° F. Took rice, crackers, butter, and milk; 5:30 P.M., ate crackers, milk cake and sauce; 8 P.M., pulse 84, temp. 99° F. Able from this time to urinate without catheter. 21st, took a laxative, and thereafter had no more trouble with constipation. Temp., A.M., 98⅘° F., and P.M. 99⅘° F. Ate turkey, potatoes, tomato, and ice-cream.

March 22d. Dilated the opening into the abcess with the finger, and directed the house surgeon to pass a finger into it at every dressing. A large quantity of débris, mixed with pus, came away at each dressing, and a little between. There was quite a little odor at the time of each irrigation, but at other times it

was scarcely noticeable. As the carbolic acid was slightly irritating to the vagina, I ordered the biniodide of mercury, 1:2,000, to be used for two days, and afterwards alternated with a one-and-one-half per cent carbolic acid solution, each once a day. Pulse 72, temp. 2 P.M., 100⅖° F.; 5 P.M., 99⅕° F.

March 23d, temp., A.M., 100⅖° F.; P.M., 100⅕° F. 24th, temp. 98⅗° F., 99⅖° F. Ate heartily of beefsteak, potatoes, and ordinary table diet; some pain in the evening, after the irrigation; temp. 100⅖° F.; tinct. opii deod. 40 drops. 25th, highest temperature 99⅗° F. Ate heartily. 26th, there was a sudden discharge of a half-ounce of pus, accompanied by a sinking of the uterus almost to its natural position; temp. 99° F. 27th, 28th, and 29th, highest temp. 99° F., 98⅘° F., 99⅕° F., 98⅗° F., 99° F. Up and about the room on the 29th 30th, temp., A.M., 98⅕° F., P.M., 101⅖° F. Considerable odor. 31st, temp., 10 A.M., 98⅖° F. A blood-clot the size of a small walnut was passed. Having just read, for the first time, the article of Apostoli and Doleris, in the *Archives de Tocol.*, for Nov., 1885, I reproached myself for my timidity in not thoroughly curetting the cavity at the time of the operation, and thus getting rid of this foul-smelling mass in advance. Finding the patient up and feeling quite well, I ordered her to bed and proceeded to scoop out the abscess with Thomas' dull curette. I went over every part of it, carefully and gently, without eliciting any complaint from the patient, and found it still to extend above the top of the uterus at the left side. Upon using a one-and-one-half per cent solution of carbolic acid, she suddenly experienced such acute pain in the left iliac region, where the lumps were situated, that I thought I had made an opening into the abdominal cavity. The lumps, which had almost disappeared, became more prominent, bloating commenced and tenderness became marked. Pulse 70, temp. 97⅖° F. Was given one-fourth grain of morphia hypodermically. 2:20 P.M., pulse 90, temp. 97⅗° F. Great tenderness and bloating in left iliac region; another hypodermic injection. Slight chills; 7:20 P.M., temp. 98⅖° F. Ordered irrigations of a one-per-cent carbolic acid solution to be commenced next morning.

April 1st. Pulse 78, temp. at 7:40 A.M., 98⅗° F.; at 2 P.M., 99⅗° F.; at 5:30, 100⅕° F. Tender and bloated. 2d, temp. A.M., 98⅖° F.; P.M., 99⅗° F. Purulent discharge. 3d, temp. A.M., 98⅖° F., P.M., 100° F.; 5th, pulse 66, temp. 98⅖° F. all day. No more tenderness. Ordered one-and-one-half per cent carbolic acid irrigations, alternated with biniodide of mercury 1:3,000. But little odor. 6th, used the irrigation myself, fourteen hours after a previous dressing. Detected no odor. A trace of pus, but no bloody débris. Pulse 72 to 90, temp., A.M., 98⅖° F.; P.M., 100° F. Wanted to get up. 7th to 10th, temp. A.M., 98⅖° F. to 99° F.; P.M., 100°, 100⅖°, 100°, 99° F. 11th, temp. henceforth normal. Odor entirely gone. Up and about the house. 21st, discharge consisted of a little mucus in

the morning, probably from the cervix. The irrigation, one-and-one-half per cent carbolic acid and 1 : 3,000 hydrarg. biniodide, had been kept up, as she was content to remain at the hospital, where her food and bedding were better than at her home. Upon examination, I found a lump the size of a small hen's egg just over the right sacro-uterine ligament binding the uterus; uterus three inches; abcess cavity collapsed. Pressed the finger into the opening and encountered a small canal leading upwards—too small for the passage of the finger.

April 28th. Returned for examination. No discharge, no odor. Feels well. Uterus movable. Still a small lump behind it and to the right. Examined also by Dr. Frances Carothers. Has menstruated normally twice since the operation, a few days ahead of time. No trouble with constipation.

May 8th. Still a little induration over right sacro-uterine ligament. Menstruated again normally, but four or five days ahead of her time.

June 5th. Induration less on the side, and now occupies a slightly lower position in the pelvis, extending from the point of puncture to the right sacro-uterine ligament. Menstruated two days ahead of time. Is canvassing as formerly, on her feet nearly all of the time.

The following points are interesting as summarizing the characteristics of this case:

1. The length of time from the occurrence of the hematocele to the time of the operation, about six months.

2. The method of opening the cavity, viz., by first tearing the vaginal wall and afterward the sac wall.

3. The absence of fluid in the tumor.

4. The breaking up the mass with the finger, without any immediate attempt at thorough curetting, or removal of the entire contents.

5. The complete disintegration and discharge of all bloody substance in thirteen days.

6. The absence of high temperature, 102° F. never having been reached.

7. The small amount of anodyne required—one dose (except the two doses to relieve the direct irritation from subsequent unnecessary curetting).

8. The toleration of strong antiseptic solutions. The vagina was the first to become irritated.

9. The absence of the usual amount of odor of such decomposing masses. The husband, who visited her frequently, thought he detected a very little odor on two or three occasions. The other patients in the ward experienced no inconvenience.

10. The large amount of food taken throughout.

11. The absence of any kind of sickness from the beginning, until the cavity was curetted. She felt well enough to be up, and asked to be allowed to get up, eight days after the operation. Allowed to sit up in bed on the tenth day, and to dress herself and get up on the eleventh day.

12. The curetting of the cavity on the thirteenth day after the operation delayed her recovery, producing the only serious symptoms that were noticed.

13. Notwithstanding a set-back of ten days caused by the curetting, she was well enough to go home inside of a month, and dispense with medical treatment.

14. No drainage tube was used, but the opening kept large enough to admit the finger until all discharge had ceased.

15. The attack came on after a miscarriage.

P. F. Mundé reports two new cases of large hematoma successfully operated upon three and six weeks respectively after their occurrence, and resulting from or after abortions. (*N. Y. Medicinische Presse*, Vol. I., No. 1, Dec., 1885.) He also kindly furnishes me with the record of a case operated upon six weeks after the appearance of the symptoms, in which no pus was found. Irritation of the bowels after eating four or five baked apples (thin stools and persistent abdominal pains) is the only possible cause known. Twenty-six and a half ounces of dark, thick blood were evacuated. Patient discharged cured thirty-two days after the operation.

In the past two years I have treated five other cases of this nature; four extraperitoneal hematomas and one retro-uterine hematocele.

The first was as large as a goose egg, in the left broad ligament, and came on after a miscarriage. On account of acute anteflexion, the cervix had been dilated by a sponge-tent for the removal of retained placenta. The hemorrhage afterwards was without odor, and continued five weeks, although she was kept in bed. She was 28 years old. She had suffered with dysmenorrhea as a girl, and was sterile for several years after marriage. Had one child three years before. The lump had become hard and considerably smaller when I examined her last, viz., two months after its onset, and gave her then only slight inconvenience. She is now strong and hearty, and has conceived again.

The second occurred in a young girl, engaged to be married, 22 years old, and was caused by excessive skating in a rink before and during a menstrual period. The tumor was the size of a

hen's egg, and on the right side. She did not remain in bed, although she bled for six weeks. She soon came to feel quite well, and remained so until she got married, four months after. Then the hemorrhage returned and continued with short intermissions until a short time ago.

The third was after a supposed early abortion. The patient, 26 years old, had had one child several years before. Cervix moderately lacerated. The hemorrhage had continued about five weeks before I saw her. The tumor was a little larger than the uterus, and on the right side, and at first quite sensitive. The hemorrhage continued three months and a half, the last two of which were, by my direction, spent in bed. Absorption was too slow to be appreciable during the first two months, yet rapid after that. It is now, six months from its beginning, about twice as large as a healthy ovary, has lost its sensitiveness, remains hard, and is rapidly disappearing. Uterus now three inches deep. A decidua was passed soon after she took to bed. The cause was probably an extrauterine pregnancy. She was seen by Dr. E. J. Doering, my consultant, on two occasions (Sept. 15th, no trace of tumor found).

The fourth case was a retro-uterine hematocele in a multipara of 36 years. Syphilitic history on husband's side before marriage. Several abortions. Had had slight laceration of cervix sewed up two years before. Areolar hyperplasia. Had symptoms of pelvic congestion during the month before the attack, for which she was advised to keep the bed. Went to a funeral while menstruating, and was taken down soon after. The tumor was large, filled the pelvis, extended above the fundus behind, and came on with symptoms of collapse. The patient was also seen by Dr. D. A. K. Steele. She remained in bed two months. Scarcely any trace of tumor was left at the end of three months, none at the end of four.

The fifth case was that of Mary St., already reported.

Case number six was a hematoma occurring after an abortion had been produced upon a young girl, and extended across behind the uterus. It had undergone the process of hardening and nodulation, and was being satisfactorily absorbed when she left the hospital, in a little less than two months from the time of its occurrence. In bed she felt quite well and was without fever, but was taken with pain and fever each time she disobeyed orders and left the bed.

In these nine new cases (including Mundé's), five occurred during or after abortion, one was caused probably by extrauterine pregnancy, two by over-exertion and exposure during congestion of the pelvic organs, and one was due possibly to irritation of the bowels. The five cases due to abortion would seem to give us abortion as a not uncommon cause of hema-

toma and hematocele, and help to explain the frequency of suppression of the menses before attacks.[1]

Hematoma of small size is undoubtedly in many instances entirely overlooked, especially after abortion and in cases where it forms gradually. On account of the hardness and tenderness of the tumor when discovered, it is sometimes mistaken by the general practitioner for inflammatory exudation. Hence I believe it to be a more frequent disease than has been supposed. Long-continued metrorrhagia after complete expulsion of the early ovum, without much pain or febrile reaction, except temporarily, should lead us to examine the broad ligaments carefully for such a tumor.

It is singular with what unanimity the text-books recommend non-interference for hematoma and hematocele until dangerous, or at least serious symptoms arise. After performing the above-reported operation, I searched them in vain for authority in so doing, but was met everywhere with echoes of Nélaton's conservative cry of alarm. Finally obtaining a copy of Billroth and Luecke's "Frauenkrankheiten," second edition, 1886, I found evacuation recommended by Bandl "when a large accumulation remains stationary for weeks without showing any tendency to resorption." He would delay as long as possible for the sake of avoiding the danger of hemorrhage, but did not consider it safe to wait longer than after one menstrual period had passed. Mundé, operating in 1885 at three and six weeks, anticipated, in a measure, this advice.

That the treatment thus formulated is decidedly in advance of anything that has gone before it must be acknowledged. The extreme views taken by Zweifel (*Arch. für Gyn.*, XXII. and XXIII.), to operate in two or three weeks, and by Apostoli and Doléris (*Arch. de Tocol.*, November, 1885), that, "every hematocele, without exception, can and should be punctured (by the galvano-puncture) as soon as the diagnosis is certain,"[2] are dangerous and experimentative, and require further proof as to their relative innocuousness. The statistics given prove not that

[1] Dr. H. N. Heineman reported, Sept. 22d, to the New York Pathological Society (N. Y. Med. Record, Oct. 16th, 1886, p. 442) a fatal case of hematoma, with autopsy, in which "the uterus contained the remains of a forming placenta, and the mucous membrane was slightly lacerated."

[2] "Toute hématocèle diagnostiquée pourra et devra être immédiatement ponctionnée sans différer."

an early operation is the least dangerous of all procedures, but that it is a trifle less dangerous than doing nothing in all cases.

The dangers incurred by leaving the accumulation to be absorbed being mostly remote, and the large majority of cases being cured by absorption, it becomes our duty (excepting, of course, those in which pressure becomes immediately dangerous) to give this classic method a trial. And the principal, indispensable, and first thing to be done is, in all cases, to prescribe absolute quiet or rest in bed until the local congestions and inflammations shall have abated. Inattention to this one particular is the cause of a large part of the serious trouble that arises. There is nothing to show that Munde's cases, before he saw them, had the benefit of such rest in bed. The high temperature in two of them, without the presence of pus, would indicate that these had not. The case operated upon by Apostoli and Doleris certainly did not, until too late.

These remote dangers incident to the expectant treatment are suppuration, septicemia, perforation, and prolonged pressure upon, and displacement of surrounding organs, with their results, viz., the aggravation and perpetuation of pre-existing pelvic diseases, or the originating of new ones.

The dangers of immediate operation, or during the first two or three weeks, are a recurrence of shock, hemorrhage, or (if hemostatic tampons be used) inflammation; or of septicemia followed by inflammation if antiseptic injections of sufficient strength be used.

That the cure by immediate or early operation is radical will not be denied. But it involves the substitution of these immediate dangers for the remote ones. Zweifel having shown that the mortality in severe cases is about equal by either method, the problem to be solved is how to avoid both these immediate and remote dangers. This is where Bandl takes it up. But his fear of changes in the tumor and its surroundings prevents him giving sufficient prominence to the immediate dangers of uncontrolled septicemia, or of inflammation from the strength of the antiseptic solution necessary to control it; or else of the inflammation apt to result from the curetting necessary for complete evacuation.

A careful perusal of the records must convince any one that both Bandl and Zweifel, in their writings, are overrating the

dangers of delay. The pus is very seldom formed in less than six weeks, usually not that early, in quantities sufficient to add to the patient's danger. Apostoli and Doleris, after a continuance of unfavorable symptoms, in their case, for six weeks, resulting finally in a waxy and cachectic look, tender abdomen, fever, etc., found no pus. Mundé, at the end of three and six weeks, with temperature of 101⅘° F. and 102° F., found no pus. With the proper treatment and rest from the beginning of the attack, such cases would, as a rule, not produce such severe symptoms, and should be regarded as exceptional or neglected ones, from which general deductions may not be made.

In the case reported in the beginning of this paper, the woman suffered during the first two months almost as much as hose operated upon, and yet waited six months. In case IV., of the large retro-uterine hematocele, in which only traces of the tumor were left after three months, and none after four, the patient, for the first four weeks, was able to keep almost nothing on her stomach, and suffered with constant pain (requiring narcotics), frequent attacks of dyspnea, palpitation, etc. Her condition was at one time considered critical, and seemed to call for surgical interference. At the end of five weeks she got up for about an hour, but felt so much worse afterwards that she was content to remain quietly in bed until allowed to leave it. She commenced to get about after two months had elapsed, and in another month was quite strong. An operation could have done no better, but only have increased her danger. In case No. III. the patient was in bed a month before there was much amelioration in the symptoms, and nearly two months before the metrorrhagia ceased, and the tumor began to grow much smaller. In case VI. the symptoms became worse, and were accompanied by fever and pains until she went to bed and staid there, when they rapidly subsided.

Therefore, as purulent degeneration is slow to appear, and as the other symptoms, as a rule, improve under proper treatment, instead of getting worse, as they do under improper management, we may, with a few exceptions, wait until a normal, or nearly normal temperature, abatement of tenderness, and other signs of improvement tell us that the acute stage has passed off, whether it be six weeks or six months.

But, with an abatement of the severer symptoms, the old query still confronts us: Shall we operate, or continue the ex-

pectant treatment (until signs of mischief become apparent? As this kind of waiting is as dangerous as the early operation in severe cases, and means to lose the advantage gained by the avoidance of an early operation, it clearly becomes our duty to anticipate such harm; yet not by operating early and recklessly in all severe cases, but by selecting such as have ceased to improve, are not being perceptibly absorbed, and are large enough to interfere with the functions of the pelvic organs, or the general comfort and usefulness of the patient. As long as the tumor is shrinking and becoming harder, no matter how slowly, we may expect that the fluid is being absorbed and the clot will, with rest in bed, disappear in the same way, notwithstanding local irritation, reflex symptoms, and debility, and hence should delay operating. If, however, the tumor remain boggy or doughy, and undimished in size, showing that the fluid has not been absorbed, and the local symptoms, instead of partially subsiding, increase, with fever, emaciation, etc., it may, of course, become necessary to evacuate soon after the first menstrual period. As said before, these are the exceptional or neglected cases.

But there will sometimes occur histories like that of Mary S——— in which, after a few months, the tumor will still be elastic and boggy, the symptoms gradually improve under rest in bed, and the final absorption be not improbable; but in which poverty, want of care, necessity of working, and the like, may render an evacuation desirable and fully as free from risks as the expectant plan under such unfavorable circumstances. Indeed, if the acute symptoms have passed off, and several months of invalidism can be saved by evacuation, the patient should have the benefit of an operation at the time when it is so free from danger.

As to the method of operating, I would not give the preference to that of Apostoli and Doléris, because two operations are required (one for the galvano-puncture, and the other for the breaking up, or scooping out, of the mass after separation of the eschar), because the formation of such an opening large enough to introduce the finger would involve the destruction of too much tissue, and because the use of the curette through a small opening is not devoid of danger. Their method is the ideal one for hard, inelastic tumors, but such hematoceles seldom require an operation until they commence to soften. Zweifel's method of

procedure, viz., to first incise the vagina, check the hemorrhage, and then open the sac, is preferable. But, on account of the danger of troublesome hemorrhage from incision, it is better to puncture, and then tear the vaginal wall with a dilator until the rent will admit two fingers. The sac-wall may be opened in the same way, or, if any difficulty is experienced, may be incised. Retro-uterine hematoceles in cases where the cul-de-sac of Douglas has been previously obliterated should, I believe, be attacked by puncture and dilatation per rectum, when possible, rather than by abdominal section. The difficulty would be but little greater than the dilatation of the fistulous opening of a pelvic abscess.

The plan adopted in the case reported, but only imperfectly executed, of breaking up the entire clot, but avoiding any scraping of the walls of the cavity, proved to be as efficient as imperfect curetting, and vastly less dangerous than a thorough curetting of the cavity walls. Following this careful avoidance of the production of irritation, antiseptics may be tried strong enough to be thoroughly efficient, viz.: hydrarg. biniodide, 1 : 3,000; bichloride, 1 : 2,000; carbolic acid, 1½ to 2 per cent; or their equivalent. If they cannot be used of this strength, they may be used oftener—three to five, instead of two or three times a day. The finger can be used as a dilator, and be passed daily through the openings both in the vagina and cyst-wall. The possibility of the presence of an extrauterine pregnancy, ovarian tumor, serous peritonitis, fibroid or fibro-cystic tumor of the uterus, etc., makes it advisable always to use an aspirating needle previous to using the knife.

Abdominal section for such tumors as cannot be safely reached through the vagina or rectum is purposely left out of consideration, as a different set of dangers are involved, and a separate discussion would be required.

Schroeder's "Weibliche Geschlechtsorgane" (1886), which was received after this paper was completed, contains the following paragraph, p. 482:

"The evacuation of the tumor may become necessary when it causes unendurable difficulties, when it remains stationary for some time, and, above all, when fever, etc., indicate that its contents are septic."

DISCUSSION.

DR. T. D. FITCH said: I have had very limited experience with operative procedure in this class of cases. As a rule, I feel like praising the bridge that has carried me safely over. My usual treatment has been the expectant plan, or trusting to resorption of the clot. Resorption occurs in other tissues of the body, the leg or arm, where you would not think of opening the cavity and turning out the clot. It would be a very bad principle in surgery, I think. My experience has not been sufficient to condemn the operation entirely, but I feel like trusting to the safer plan of the expectant treatment. I have never operated in more than two or three cases, and would not have operated in them had not there been a mistake in diagnosis. One of these cases was a lady at Jefferson, who gave a history of cellulitis. There was softening and fluctuation in the tumor presenting. I was called in consultation by the attending physician. The symptoms were those of cellulitis, resulting in abscess. The aspirator was used and a very small amount of pus was drawn off, and then a larger amount of disintegrated blood. All was drawn off that could be, and the woman recovered, no bad results following the aspiration. No drainage was instituted, and no scooping out of the blood clot was performed; there was no special treatment except on general principles, and the vaginal injections of antiseptic fluids. The opening was not enlarged, the sac was not injected nor washed out. The opening made by the aspirator needle probably closed up so that no air was admitted, and no decomposition or blood-poisoning occurred.

Another case was one in which I assisted in an operation for supposed extrauterine pregnancy. Two distinguished Fellows of this Society were present and concurred in the diagnosis. It was decided to open the tumor through the vagina with a galvano-cautery knife, and when this was opened, there poured out of it a gelatinous fluid, as white and as clear and pure as could be; it looked to me very much like soft boiled rice. It was a clear white, and perfectly inodorous. The sac was washed out with antiseptic fluids, and the patient treated on general principles; I think no drainage was used. The sac was not scooped out; nothing was turned out except the tablespoonful or two of gelatinous fluid of which I spoke.

Another case I might mention, in which the attending physician and myself (I was called in consultation) diagnosticated an abscess; opened it with the aspirator, and found that it was an hematocele. I believe the expectant plan of treatment is preferable to operative interference. I think a larger percentage of cases would recover under this treatment.

DR. JOHN BARTLETT said: I will take occasion to refer to a fatal accident that once came under my observation, which tends to show the necessity for the greatest care in opening cavities per vaginam, whether resulting from hematocele or cellulitis. A patient was greatly reduced by long-continued pelvic abscesses. It seemed to be one of those cases in which an operator is called upon to make a determined attempt to reach, evacuate, and curette a chain of abscesses found to exist within the pelvis. Several col-

lections of matter were opened, and it was supposed that the object of the operative procedure had been happily accomplished. The final washing of the cavity with carbolized water was in progress when suddenly the patient fell into a profound collapse; respiration ceasing and pulsation at the wrist failing. This condition was regarded as an accident from ether. Every effort at restoration was unavailing till a faradic current was passed through the phrenic nerves at proper respiratory intervals. The patient then gradually rallied, and the danger was thought to have ceased. On the following morning, the carbolized injection was repeated by an assistant; a fatal collapse immediately ensued. Post-mortem examination revealed a small opening through the roof of the pelvis, and the presence in the peritoneal cavity of the injected fluid. If the Society will pardon a digression, before closing I will take occasion to refer to a symptom of hematocele which would seem to be as rare as it is suggestive. In one case, associated with this condition I observed the whole surface of the abdomen below the navel to present an ecchymotic appearance as from the extravasation of blood after an injury. The patient was alarmed at the "black and blue" appearance, regarding it as a sign of "mortification." It existed for weeks and disappeared, pari passu, with the pelvic extravasation.

Dr. W. W. Jaggard thought the ruptured cyst of extrauterine pregnancy a more frequent cause of retro-uterine hematocele than the text-books would lead one to believe. Gallard has emphasized the importance of the operation of this etiological factor. He[1] makes a statement to the effect that, independently of traumatism, almost all hematoceles are caused by the ruptured cyst of extra-uterine pregnancy. Such a broad statement naturally provoked salutary criticism. More recently, Veit,[2] Berlin, has collected one hundred and forty-six cases of hematocele, of which forty cases, or twenty-eight per centum, were probably due to the ruptured cyst of ectopic gestation. Veit's estimate does not appear extravagant.

He would like to inquire of the author of the paper, what was the indication, in the case reported, for operative interference? The indication had probably been stated, but, through inattention, he did not remember it. A small non-suppurating, retro-uterine hematocele of six months' standing was not, *per se*, an indication for any operative interference.

Any discussion of the surgical treatment of retro-uterine hematoceles would be incomplete without some mention of Dr. A. Martin's plan of treatment in cases of extra-peritoneal hematoma. Laparotomy is perfomed, eventration of the intestines effected, the sac incised, evacuated and curetted, and subsequently united by sutures, drainage is maintained per vaginam. In Martin's hands, this operation has been perfectly successful in six cases.

Dr. C. T. Parkes said: I do not think I have anything new to offer on the question of treatment of hematocele. My experience embraces only three cases. The first was a lady whom Dr. Fitch saw with me about a week after the initial symptoms, which present themselves in these troubles, had appeared, and we concluded to make an opening through the cul-de-sac of Douglas. I used the Paquelin cautery for the purpose of opening up the mass, which

[1] "Leçons Cliniques des Maladies des Femmes." Paris, 1873, p. 635.
[2] "Die Eileiterschwangerschaft," Stuttgart, 1884, p. 14.

was not very extensive. The principal symptom which led us to think it was necessary to resort to interference was the evidence of the presence of probable suppuration. The lady had been having slight chills and some corresponding rise of temperature, and we thought it best to be certain whether or no the mass had decomposed and broken down, so we opened it with the cautery, and quite a quantity of grumous, broken-down blood with clots came out. The lady was relieved of her pain and distress. We introduced a drainage tube, and through this tube passed a large catheter as long as the opening would permit, and washed out the cavity every day and followed it up for a long while, with a diminution in the size of the mass, until it got so that it was merely perceptible above the pubes, then the chills came on again more severely, and after suffering for a month or six weeks she finally died of septicemia. In that case I was satisfied, from the fact of being able to fill the cavity apparently, under the force of hydrostatic pressure, and then have something give way, and the fluid rapidly disappear, that we had a series of cavities which were opening into each other. I think if I had such a case to manage now, I should do differently. I should use thorough antiseptic precautions and care at present; such treatment was not then deemed necessary. The next case, a very interesting one, happened last winter: I saw the lady four or five weeks after she was taken ill. She was taken as though she were going to have a miscarriage after having missed menstruation twice, and when I saw her she was in an extreme condition of collapse; upon examining the abdomen, it was found full of something, dull on percussion, resonant above and to the sides; on digital examination the ordinary signs of hematocele were present. This woman was in such a weak condition that I could not bring myself to the idea of interfering, and tried to support her and wait for events. I attended her two weeks, while she varied from one condition to another, all the time life hanging by a thread. In the third week, on examining her abdomen, I thought I detected fluctuation, and in two or three days was certain of it. I aspirated in the linea alba, midway between umbilicus and pubes, and at first withdrew a quart of blood, but, although I was satisfied there was more there, I did not repeat the aspiration that day. Two days afterwards I aspirated again, and withdrew two quarts. She began to improve from that moment; I merely put her on tonics and supporting treatment; this was in February. I saw her about a month ago, and she was going about the house the same as any one else. The third case was a little later in the same year, a lady who had been bleeding a little for some time, with the presence of signs of conception of two months' date. I made an examination, and was satisfied that I detected to the right of the uterus a mass as large as one's fist, easily reached by manipulation internally and externally, tense to the touch, and elastic. I diagnosed a probable hematocele, kept her quietly in bed, but did nothing special for her. The occurrence of this tumor was accompanied by extreme shock, prostration, pallor of the body, and symptoms of collapse. She has now entirely recovered without any interference whatever. That last case led me to think of some of the reports I have read about surgeons being called to see a patient in collapse, finding she has flowed a little, with a history of probable pregnancy, making an examination, and discovering a little tumor, diagnos-

ing extrauterine pregnancy, using electricity, and curing the patient. It seems to me there may be a possibility of there being a mistake in some of these cases of extrauterine pregnancy that are cured so readily by the use of electricity. They are becoming very frequent. I must say that it was a very difficult matter for me to decide, in this case, whether it was extrauterine fetation or hematocele, still I am satisfied that it was an hematocele.

Dr. H. T. Byford said: Before closing the discussion, I would like to add the following case to the series reported in the paper:

Case VI.—Mary H., a German servant girl, 25 years old, was taken sick with pains about the lower abdomen, nine months ago. The attack, which came on after a menstrual period, kept her in bed little of the time, but did not pass off. In six weeks, her menses came on and lasted two weeks. The bleeding ceased for a few days, then returned and had continued, in varying quantity, until stopped by ergot about a week before I saw her. Vesical irritation was an almost constant symptom. Up to that time, she had tried to attend to her work, but then gave up her place. She told me, a little over a month ago, when I first saw her, that she had felt worse since taking the medicine. The great pelvic tenderness subsided rapidly under the "absolute rest" treatment, and in less than a week afterwards I was able, without paining her, to completely circumdigitate a large boggy or semi-elastic tumor in the right broad ligament, extending behind the uterus from a level with the internal os upwards, and reaching into the left broad ligament, where it felt harder and nodulated. The uterus was anteflexed, displaced anteriorly and to the left (leaving only room enough between the cervix and the pubes for the index finger), and intimately attached to the surrounding mass. The probe entered three inches, turning forwards. After keeping off her feet, although not in bed, using hot douches, iodine applications to the abdomen, iron internally, and having glycerin plugs applied about every three days for three weeks, the tumor had become harder, somewhat nodulated in places, and perceptibly smaller. She had felt quite well again until the last few days, when she undertook to resume her domestic duties.

This case shows well the positive benefit of rest, and the positive harm that is sure to result from want of it. Its history is similar to the history of many such tumors which go on to suppuration, but which, with proper treatment, would have been promptly absorbed.

The unfortunate case related by Dr. Bartlett bears witness to the dangers of the curette in pelvic hematoceles, and is probably one among many somewhat similar ones that have not been reported. The necessity of a large opening, perfect drainage, and great antiseptic precaution is vividly shown by one of the cases recited by Dr. Parkes. His view as to the liability to the formation of pus pockets is corroborated by the sudden discharge of half an ounce or more of pus on March 26th, in the case of Mary St——, followed by the rapid sinking of the uterus back into a natural position. This pus pocket, had the operation *not* been performed, would probably have formed and pointed upwards in the direction of the least resistance, and would have become an abdominal abscess, and a serious thing to manage. I quite agree with Dr. Parkes that simple hematoma and hematocele are too often thought to result from extrauterine pregnancy, and

think it is partly the result of Gallard's theory that all non-traumatic cases are extrauterine pregnancies—a theory which has done its good and has had its days. The intensity and persistence of the local symptoms, the passage of the decidua, and the past or present characteristic symptoms of the pregnant condition should usually prevent such a mistake.

I think with Dr. Jaggard that Bandl would have us operate too early; I only claimed that Bandl's views were a great advance in the therapeutics of pelvic effusions, in that, while recognizing the dangers of early interference, he does not allow the fear of inducing septicemia to intimidate him into waiting until septicemia has already accomplished its mischievous, and perhaps fatal work. The reason why Bandl's latest views have had so little apparent effect upon the profession is, that they have only been before the profession at large for a few months. I had come to the conclusion that, with our present knowledge of antiseptics, we need not be frightened out of opening up these accumulations, and had acted upon it before I knew of Bandl's views; and so had many others whose veneration for long-established authority had not overpowered their individual judgment.

A. Martin's method of operating for hematoceles and hematoma is *one* method, but that it is *the* method cannot be maintained upon scientific grounds so as to convince the profession; nor has it as yet been so proved by its success. As to the frequent bunglesomeness of operations per vaginam and per rectum, there is scarcely to be found an opportunity for the bungler like the performance of laparotomy for pelvic disease. I doubt if I exaggerate in saying that half of the abdominal sections are done in a bungling manner, especially when compared to those of Martin and a few others.

In my paper I advocate the expectant plan of treatment, and have used it, and so far succeeded with it, in all of this series of cases except one. That case was operated upon because the conditions for a cure without the operation were not attainable; because, even if attainable, they would have taken too much time to restore the patient to usefulness; and because, if properly done, the operation in such a case is almost devoid of danger. I regard it as a good illustration of when we may operate in case the expectant plan does not afford relief. In case VI., Mary H., which I have just reported, I shall use every effort to do without surgical interference, because the interior of the sac cannot be easily and safely reached.